

L Number	Hits	Search Text	DB	Time stamp
1	95	dha and immunoaffinity	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 13:51
2	66	(dha and immunoaffinity) and (mass adj spectro\$)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 13:53
3	1410	(mass adj spect\$) and immunoaffinity	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 14:02
4	20186	internal adj (reference or standard)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 13:54
5	121	((mass adj spect\$) and immunoaffinity) and (internal adj (reference or standard))	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 13:54
6	36	((mass adj spect\$) and immunoaffinity) and (internal adj (reference or standard))) and analyte	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 13:54
7	71	(mass adj spect\$) same immunoaffinity	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 14:02
8	12	(internal adj (reference or standard)) and ((mass adj spect\$) same immunoaffinity)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 14:09
9	2210	(mass adj spectr\$) same (internal adj (reference or standard))	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 14:09
10	34	((mass adj spectr\$) same (internal adj (reference or standard))) and immunoaffinity	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 14:12
11	642	purif\$ same sample same immunoaffinity	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 14:12
12	11	(purif\$ same sample same immunoaffinity) same advantag\$	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 14:15
13	236	immuno\$ same (internal adj (reference or standard))	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 14:16

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
1	BRS	L1	64781	mass adj spectr\$	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 09:21	
2	BRS	L2	3897595	(internal adj reference) or control	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 09:22	
3	BRS	L3	389301	and 2	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 09:22	
4	BRS	L4	4553	1 same 2	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 09:22	
5	BRS	L5	320	1 same (internal adj reference)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 09:47	
6	BRS	L6	17	5 and immunoassay	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 09:51	

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments
7	BRS	L7	4256	1 same control	USPAT; US-P GPUB ; EPO; DERW ENT	2003/10/21 09:51	
8	BRS	L8	715	7 and immunoassay	USPAT; US-P GPUB ; EPO; DERW ENT	2003/10/21 09:51	
9	BRS	L9	19	7 same immunoassay	USPAT; US-P GPUB ; EPO; DERW ENT	2003/10/21 09:52	

L Number	Hits	Search Text	DB	Time stamp
1	64781	mass adj spectr\$	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 12:16
2	1942	(mass adj spectr\$) and multiplex\$	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 12:16
3	31	((mass adj spectr\$) and multiplex\$) and (internal adj reference)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 12:17
4	152	((mass adj spectr\$) and multiplex\$) and (internal adj control)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 12:21

L Number	Hits	Search Text	DB	Time stamp
1	0	(multiple or plura\$) same (internal adj refernce)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 10:17
2	5631	internal adj reference	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 10:18
4	486	(internal adj reference) same different	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 10:18
5	30	(internal adj reference) near2 different	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 10:18
6	5	((internal adj reference) near2 different) and (mass adj spectro\$)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 10:19

(FILE 'HOME' ENTERED AT 10:01:20 ON 21 OCT 2003)

FILE 'CAPLUS, MEDLINE, BIOSIS, CA, SCISEARCH, EMBASE' ENTERED AT 10:01:26
ON 21 OCT 2003

L1	842567 S MASS (W) SPECT?
L2	2074 S INTERNAL (W) REFERENCE
L3	86 S L1 AND L2
L4	46 DUPLICATE REM L3 (40 DUPLICATES REMOVED)
L5	0 S L4 AND IMMUNOASSAY
L6	9992 S L1 (S) CONTROL
L7	157 S L6 AND IMMUNOASSAY
L8	95 DUPLICATE REM L7 (62 DUPLICATES REMOVED)

- TI Use of stable isotopes in gas chromatography-**mass spectrometric** studies of drug metabolism
- AB Stable isotope labeled **internal reference** stds. of diphenylhydantoin [57-41-0], phenobarbital [50-06-6], and valium [439-14-5] were used to quantify these compds. in biol. fluids in the pg to ng range by selective ion detection with 2 gas chromatog.-**mass spectrometry**-computer systems. Labeled pentobarbital [76-74-4] was used to quantify amobarbital [57-43-2], secobarbital [309-43-3], butabarbital [125-40-6], and pentobarbital.s.
- SO Journal of Chromatography (1974), 91, 413-23
CODEN: JOCRAM; ISSN: 0021-9673
- AU Horning, M. G.; Stillwell, W. G.; Nowlin, J.; Lertratanangkoon, K.; Carroll, D.; Dzidic, I.; Stillwell, R. N.; Horning, E. C.

L Number	Hits	Search Text	DB	Time stamp
1	64781	mass adj spectr\$	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 12:16
2	1942	(mass adj spectr\$) and multiplex\$	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 12:16
3	31	((mass adj spectr\$) and multiplex\$) and (internal adj reference)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 12:17
4	152	((mass adj spectr\$) and multiplex\$) and (internal adj control)	USPAT; US-PGPUB; EPO; DERWENT	2003/10/21 12:21
5	14277	internal adj standard	USPAT; US-PGPUB	2003/10/21 12:35
6	4835	(mass adj spectr\$) and (internal adj standard)	USPAT; US-PGPUB	2003/10/21 12:35
7	1867	(mass adj spectr\$) same (internal adj standard)	USPAT; US-PGPUB	2003/10/21 12:35
8	174	((mass adj spectr\$) same (internal adj standard)) and immunoassay	USPAT; US-PGPUB	2003/10/21 12:38
9	3644	1.clm.	USPAT; US-PGPUB	2003/10/21 12:38
10	230	5.clm.	USPAT; US-PGPUB	2003/10/21 12:38
11	51	1.clm. and 5.clm.	USPAT; US-PGPUB	2003/10/21 12:38
12	464	internal adj reference.clm.	USPAT; US-PGPUB	2003/10/21 12:39
13	15	1.clm. and (internal adj reference.clm.)	USPAT; US-PGPUB	2003/10/21 12:39

- TI Generalized **internal reference** method for simultaneous multichannel analysis
- AB The applicability of the internal ref. method is limited by the need to find a ref. channel that will mimic the fluctuations of the anal. channel. A generalized internal ref. method (GIRM) is suggested, that enables compensation of nonrandom fluctuations in anal. channels, regardless of the parameters affecting them. In the generalized method several internal std. channels, that respond differently to variations of the parameters of the anal. system, are measured simultaneously. The criteria for selecting internal stds. and the calcn. procedure are described. The GIRM was developed for application in at. emission spectroscopy with an inductively-coupled plasma source; however, the method is applicable to systems that are flicker noise limited and that perform multichannel (or multiplex) measurements simultaneously, e.g. isotope diln.-~~mass~~ **spectroscopy**.
- SO Analytical Chemistry (1984), 56(1), 37-43
CODEN: ANCHAM; ISSN: 0003-2700
- AU Lorber, Avraham; Goldbart, Zvi

ANSWER 34 OF 46 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 17

- TI INDUCTIVELY COUPLED PLASMA-**MASS SPECTROMETRY** DRIFT
CORRECTION BASED ON GENERALIZED INTERNAL REFERENCES IDENTIFIED BY
PRINCIPAL COMPONENTS FACTOR ANALYSIS.
- AB Abstract factor analysis is applied to repeated measurements of
inductively coupled plasma-**mass spectrometry** (ICP-MS)
responses for several elemental masses in a multielement standard. During
good operation, over 90% of the variance in response is accounted for by
two or three factors. These factors tend to correlate with different mass
ranges, and these correlations allow a rational basis for selection of
candidates for **internal reference** elements. Internal
references selected from these candidates were used to evaluate three
different mathematical methods for correcting ICP-MS responses of all
elements. The line ratio **internal reference** method
and the analyte **internal reference** correlation method,
which use a single **internal reference** for all
elemental masses, improved precisions for most elements but decreased or
had no effect on precisions of other elements. The generalized internal
reference method, which may use more than one elemental mass in the
correction calculation, precisions for all elements in most experiments.
- SO Chemometrics and Intelligent Laboratory Systems, (1991) Vol. 10, No. 3,
pp. 293-302.
CODEN: CILSEN. ISSN: 0169-7439.
- AU WANGEN L E [Reprint author]; BENTLEY G E; COFFELT K P; GALLIMORE D L;
PHILLIPS M V

L4 ANSWER 29 OF 46 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN DUPLICATE 14
TI QUANTITATIVE-DETERMINATION OF PROTEINS BY MATRIX-ASSISTED LASER-DESORPTION
IONIZATION TIME-OF-FLIGHT **MASS-SPECTROMETRY**

AB A method of protein quantitative analysis using matrix-assisted laser desorption/ionization time-of-flight **mass spectrometry** is described. To decouple the quantitative approach from the extreme dependence of absolute ion signal on the experimental parameters of the matrix-assisted technique, the method relies on the normalization of analyte molecular ion signals to **internal reference** molecular ion signals. Further, as protein molecular ion signal responses are dependent on the nature of the solutions from which they are analyzed, experiments were carried out using a quantitative approach of standard addition. Linear relationships were observed, over at least 1 order of magnitude, between the normalized analyte signal and analyte concentration, with average relative errors on the order of similar to 15%. For molecular ion signals which were well resolved from quasimolecular adduct ion signals, little difference in average relative error was observed when the analyte concentration was plotted versus either the normalized intensity or the normalized integral. The average relative error was observed to be lower when the normalized intensity of nonresolved ion signals was used. In model solutions containing more than just analyte and reference proteins, little suppression of tertiary protein component signals was observed due to increasing the analyte concentration. In natural solutions, however, analyte signal was observed to be suppressed due to the complexity of the biological fluid analyzed. Through the use of simple purification techniques, this suppression was overcome to an extent which allowed the quantitative analysis of a clinically significant protein present in a natural biological fluid. General considerations, with respect to limitations and application of the quantitative and purification approaches used, are given.

SO ANALYTICAL CHEMISTRY, (01 MAY 1994) Vol. 66, No. 9, pp. 1408-1415.
ISSN: 0003-2700.

AU NELSON R W (Reprint); MCLEAN M A; HUTCHENS T W